

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.       **(Original)** A vibration isolation system for at least partially damping and isolating vibrations of a body, the system comprising:  
          a plurality of active isolator devices mechanically coupled to the body; and  
          a control system configured to control the active isolator devices, wherein the control system is configured to: decouple vibrations in modal directions; determine a modal compensation signal for each modal direction; recouple each modal compensation signal into an active isolator control signal for each active isolator device; and stabilize at least one unstable natural mode of the body.
2.       **(Original)** The vibration isolation system according to claim 1, wherein the at least one unstable natural mode stabilized by the control system is directed substantially vertically.
3.       **(Original)** The vibration isolation system according to claim 1, wherein the body is positioned on a base frame by air mounts.
4.       **(Original)** The vibration isolation system according to claim 1, wherein a passive isolator device and an active isolator device engage the body at the same location on the body.
5.       **(Original)** The vibration isolation system according to claim 1, wherein the system comprises a plurality of sensors to detect vibrations of the body.
6. - 20. **(Cancelled).**
21.      **(Withdrawn - New)** A lithographic apparatus, comprising:  
          an illumination system configured to provide a beam of radiation;

a support configured to support a patterning device, the patterning device configured to impart the beam with a pattern in its cross-section;

a substrate table configured to hold a substrate;

a projection system configured to project the patterned beam onto a target portion of the substrate; and

a vibration isolation system for at least partially damping and isolating vibrations of the projection system, the system comprising: a plurality of active isolator devices mechanically coupled to the projection system and a control system configured to control the active isolator devices, wherein the control system is configured to: decouple vibrations in modal directions; determine a modal compensation signal for each modal direction; recouple each modal compensation signal into an active isolator control signal for each active isolator device; and stabilize at least one unstable natural mode of the projection system.

22. **(Withdrawn - New)** An apparatus according to claim 21, wherein the at least one unstable natural mode stabilized by the control system is directed substantially vertically.

23. **(Withdrawn - New)** An apparatus according to claim 21, wherein the projection system is positioned on a base frame by air mounts.

24. **(Withdrawn - New)** An apparatus according to claim 21, wherein a passive isolator device and an active isolator device engage the projection system at the same location on the projection system.

25. **(Withdrawn - New)** An apparatus according to claim 21, further comprising a plurality of sensors to detect vibrations of the projection system.